

## AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions of claims in the application.

### Listing of Claims:

1. - 29. (Cancelled)

30.

(Currently Amended) ~~A transmitter as defined in claim 29, including;~~ A transmitter for remotely controlling a locomotive in which is mounted a slave controller, said transmitter comprising:

- an interface for receiving an identifier of the slave controller via a first communication link;
- a data storage in communication with said interface for storing the identifier of the slave controller received via the first communication link, said data storage being operative to store an identifier of said transmitter;
- a message builder in communication with said data storage, said message builder being operative to construct a message having a tag portion and a command portion, the tag portion conveying data derived from the identifier of the slave controller and data derived from the identifier of said transmitter, the command portion conveying at least one command;
- a message encoder in communication with said message builder to encode the message constructed by said message builder;
- a signal transmitting unit for transmitting a signal over a second communication link different from the first communication link, the second communication link being an RF communication link, the signal being indicative of at least one command for causing an action to be performed by the locomotive.

20

C

2  
31. (Previously Presented) A transmitter as defined in claim 30<sup>1</sup>, wherein said message encoder processes the message constructed by said message builder to reduce an occurrence of consecutive 0's or 1's in the message constructed by said message builder.

3  
32. (Previously Presented) A transmitter as defined in claim 30<sup>1</sup>, wherein said signal transmitting unit is in communication with said message encoder for receiving the message encoded by said message encoder and for producing the signal conveying the at least one command on the basis of the message encoded by said message encoder.

4  
33. (Previously Presented) A transmitter as defined in claim 32<sup>3</sup>, wherein said signal transmitting unit includes a modulator for modulating the message encoded by said message encoder to produce the signal conveying the at least one command.

CI  
CONF  
34. - 42. (Cancelled)

5  
43. (Currently Amended) ~~A transmitter as defined in claim 42, including;~~ A transmitter for remotely controlling a locomotive, said transmitter comprising:

- a data storage for holding an identifier of said transmitter and for storing an identifier of a slave controller located on board the locomotive;
- an interface in communication with said data storage, said interface being operative to establish a first communication link with an external entity for transmitting to the external entity data derived from the identifier of said transmitter via the first communication link;
- a message builder in communication with said data storage, said message builder being operative to construct a message having a tag portion and a command portion, the tag portion conveying data derived from the identifier of the slave controller and data derived from the identifier of said transmitter, the command portion conveying at least one command;
- a message encoder in communication with said message builder to encode the message constructed by said message builder;

21

C

- a signal transmitting unit in communication with said data storage, said signal transmitting unit being operative to transmit a signal to the slave controller over a second communication link different from the first communication link, the second communication link being an RF communication link, the signal conveying:

- a) at least one command for causing an action to be performed by the locomotive; and
- b) data derived from the identifier of said transmitter.

6  
44.

(Previously Presented) A transmitter as defined in claim <sup>5</sup>~~43~~, wherein said signal transmitting unit is in communication with said message encoder for receiving the message encoded by said message encoder and for producing the signal conveying the at least one command on the basis of the message encoded by said message encoder.

7  
45.

(Previously Presented) A transmitter as defined in claim <sup>6</sup>~~44~~, wherein said message encoder processes the message constructed by said message builder to reduce an occurrence of consecutive 0's or 1's in the message constructed by said message builder.

8  
46.

(Previously Presented) A transmitter as defined in claim <sup>6</sup>~~44~~, wherein said signal transmitting unit includes a modulator for modulating the message encoded by said message encoder to produce the signal conveying the at least one command.

47.

(Previously Presented) A transmitter as defined in claim 41, wherein said interface is operative to receive over the first communication link the identifier of the slave controller for storage in said data storage.

48.

- 52. (Cancelled)

9  
53.

(Previously Presented) A slave controller for use in a locomotive having a controller module, said slave controller comprising:

- a) an interface for receiving an identifier of a transmitter via a first communication link;

22

C

- Cont
- b) a data storage in communication with said interface, said data storage being suitable for storing the identifier of the transmitter and an identifier of said slave controller
  - c) a signal receiver unit for receiving a signal from the transmitter over a second communication link different from the first communication link, the second communication link being an RF communication link, the signal conveying a message including a command portion indicative of at least one command for causing at least one action to be performed by the locomotive, the message also including a tag portion including data derived from the identifier of the transmitter and data derived from the identifier of said slave controller;
  - d) a logical processing unit in communication with said data storage and with said signal receiver unit, said logical processing unit being operative to:
    - i) perform a validation procedure on the message including comparing the tag portion in the message with the identifier of the transmitter and the identifier of said slave controller in said data storage;
    - ii) if the validation procedure validates the message, generate control signals directed to the controller module for causing the locomotive to perform the at least one action.

<sup>10</sup>  
54. (Previously Presented) A slave controller as defined in claim <sup>9</sup>53, wherein said data storage is operative to release the identifier of said slave controller to said interface for transmission over the first communication link.

<sup>11</sup>  
55. (Previously Presented) A slave controller as defined in claim <sup>10</sup>54, wherein the validation procedure includes an assessment of an integrity of the signal conveying a message.

<sup>12</sup>  
56. (Previously Presented) A slave controller as defined in claim <sup>11</sup>55, wherein the assessment of the integrity of the signal conveying a message includes processing the signal conveying the message by an error detection algorithm.

23

C

13

57.

(Previously Presented) A slave controller as defined in claim ~~55~~<sup>11</sup>, wherein the assessment of the integrity of the signal conveying a message includes processing the signal conveying a message by an error correction algorithm.

14

58.

(Previously Presented) A slave controller as defined in claim ~~53~~<sup>9</sup>, wherein said interface is a serial interface.

15

59.

(Previously Presented) A slave controller as defined in claim ~~53~~<sup>9</sup>, wherein the at least one action to be performed by the locomotive is acceleration.

16

60.

(Previously Presented) A slave controller as defined in claim ~~53~~<sup>9</sup>, wherein the at least one action to be performed by the locomotive is braking.

17

61.

(Previously Presented) In combination:

- a) a locomotive having a controller module;
- b) a slave controller mounted on board the locomotive;
- c) said slave controller comprising:
  - i) an interface for receiving an identifier of a transmitter via a first communication link;
  - ii) a data storage in communication with said interface, said data storage being suitable for storing the identifier of the transmitter and an identifier of said slave controller
  - iii) a signal receiver unit for receiving a signal from the transmitter over a second communication link different from the first communication link, the second communication link being an RF communication link, the signal conveying a message including a command portion and a tag portion, the command portion being indicative of at least one command for causing at least one action to be performed by said locomotive, the tag portion

24

including data derived from the identifier of the transmitter and data derived from the identifier of said slave controller;

iv) a logical processing unit in communication with said data storage and with said signal receiver unit, said logical processing unit being operative to:

(1) perform a validation procedure on the message including comparing data in the tag portion in the message with the identifier of the transmitter and the identifier of said slave controller in said data storage;

(2) if the validation procedure validates the message, generate control signals and directing the control signals to the controller module for causing said locomotive to perform the at least one action.

*Cont.* 18  
62. **(Previously Presented)** A combination as defined in claim <sup>17</sup>61, wherein said data storage is operative to release the identifier of said slave controller to said interface for transmission over the first communication link.

19  
63. **(Previously Presented)** A combination as defined in claim <sup>17</sup>61, wherein the validation procedure includes an assessment of an integrity of the signal conveying a message.

20  
64. **(Previously Presented)** A combination as defined in claim <sup>19</sup>63, wherein the assessment of the integrity of the signal conveying a message includes processing the signal conveying a message by an error detection algorithm.

21  
65. **(Previously Presented)** A combination as defined in claim <sup>19</sup>63, wherein the assessment of the integrity of the signal conveying a message includes processing the signal conveying a message by an error correction algorithm.

22  
66. **(Previously Presented)** A combination as defined in claim <sup>17</sup>61, wherein said interface is a serial interface.

23  
67. **(Previously Presented)** A combination as defined in claim <sup>17</sup>61, wherein the at least one action to be performed by the locomotive is acceleration.

25

✓

24  
68.

17

(Previously Presented) A combination as defined in claim ~~61~~, wherein the at least one action to be performed by the locomotive is braking.

25  
69.

(Previously Presented) A remote control system for a locomotive having a controller module, said remote control system comprising:

- a) a slave controller for mounting on-board the locomotive;
- b) a transmitter for transmitting a wireless signal over a first communication link, the first communication link being an RF communication link, the wireless signal being indicative of at least one command for causing an action to be performed by the locomotive;
- c) said slave controller being responsive to the wireless signal to generate control signals for transmission to the controller module to implement the at least one command;
- d) said slave controller being operative to output over a second communication link, different from the first communication link, an identifier of said slave controller for transmission to said transmitter;
- e) the wireless signal including data derived from the identifier of said slave controller.

Cal Cont.

24  
70.

25

(Previously Presented) A remote control system as defined in claim ~~69~~, wherein said transmitter includes a data storage for storing the identifier of said slave controller.

27  
71.

26

(Previously Presented) A remote control system as defined in claim ~~70~~, wherein said data storage is adapted to store an identifier of said transmitter.

28  
72.

27

(Previously Presented) A remote control system as defined in claim ~~71~~, wherein said transmitter includes a signal transmitting unit for transmitting the wireless signal over the first communication link.

26

C

29  
78.

(Previously Presented) A remote control system as defined in claim <sup>28</sup>72, wherein said transmitter includes a message builder in communication with said data storage, said message builder being operative to construct a message having a tag portion and a command portion, the tag portion conveying data derived from the identifier of said slave controller and data derived from the identifier of said transmitter, the command portion conveying the at least one command.

30  
74.

(Previously Presented) A remote control system as defined in claim <sup>29</sup>73, wherein said transmitter has an interface in communication with said data storage for outputting the identifier of said transmitter over a communication link different from said first communication link.

31  
75.

(Previously Presented) A remote control system as defined in claim <sup>30</sup>74, wherein said interface is operative to receive the identifier of said slave controller and to transmit the identifier of said slave controller to said data storage.

32  
76.

(Previously Presented) A remote control system as defined in claim <sup>31</sup>75, wherein said interface is an IR interface.

33  
77.

(Previously Presented) A remote control system as defined in claim <sup>32</sup>76, wherein the at least one action to be performed by the locomotive is acceleration.

34  
78.

(Previously Presented) A remote control system as defined in claim <sup>33</sup>77, wherein the at least one action to be performed by the locomotive is braking.

35  
79.

(Previously Presented) A remote control system as defined in claim <sup>25</sup>69, wherein said slave controller includes:

- a) a data storage for holding the identifier of said slave controller;
- b) an interface in communication with said data storage, said interface operative to output over the second communication link via said interface the identifier of said slave controller.

27

✓



<sup>36</sup>  
80. (Previously Presented) A remote control system as defined in claim <sup>35</sup>79, wherein said interface is operative to receive over the second communication link an identifier of said transmitter and to direct the identifier of said transmitter to said data storage for storage therein.

<sup>37</sup>  
81. (Previously Presented) A remote control system as defined in claim <sup>34</sup>80, wherein the wireless signal transmitted by said transmitter over the first communication link conveys a message including:

- a) a command portion indicative of the at least one command;
- b) a tag portion including data derived from the identifier of said transmitter and data derived from the identifier of said slave controller.

*Cl Cont.* <sup>38</sup>  
82. (Previously Presented) A remote control system as defined in claim <sup>37</sup>81, wherein said slave controller includes a signal receiver for receiving the wireless signal transmitted by said transmitter over the first communication link.

<sup>39</sup>  
83. (Previously Presented) A remote control system as defined in claim <sup>38</sup>82, wherein said slave controller includes a logical processing unit in communication with said data storage and with said signal receiver unit, said logical processing unit being operative to:

- a) perform a validation procedure on the message including comparing data in the tag portion of the message with the identifier of said transmitter and the identifier of said slave controller in said data storage;
- b) if the validation procedure validates the message, generate control signals for transmission to the controller module for causing the locomotive to perform the at least one action.

*[* <sup>40</sup>  
84. (Cancelled)

<sup>40</sup>  
85. (Currently Amended) ~~A remote control system as defined in claim 84, wherein~~ A remote control system for a locomotive having a controller module, said remote control system comprising:

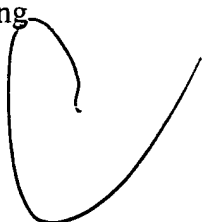
- a) a slave controller for mounting on-board the locomotive;
- b) a transmitter for transmitting a wireless signal over a first communication link, the first communication link being an RF communication link, the wireless signal being indicative of at least one command for causing an action to be performed by the locomotive;
- c) said slave controller being responsive to the wireless signal to generate control signals for transmission to the controller module to implement the at least one command;
- d) said slave controller being operative to receive over a second communication link, different from the first communication link, an identifier of said transmitter;
- e) said slave controller is being operative to output over the second communication link an identifier of said slave controller for transmission to said transmitter;
- f) the wireless signal including data derived from the identifier of said transmitter.

<sup>41</sup>  
~~86.~~ (Previously Presented) A remote control system as defined in claim <sup>40</sup>~~85~~, wherein said transmitter includes a data storage for storing the identifier of said slave controller.

<sup>42</sup>  
~~87.~~ (Previously Presented) A remote control system as defined in claim <sup>41</sup>~~86~~, wherein said data storage is operative to store the identifier of said transmitter.

<sup>43</sup>  
~~88.~~ (Previously Presented) A remote control system as defined in claim <sup>42</sup>~~87~~, wherein said transmitter includes a signal transmitting unit for transmitting the wireless signal over the first communication link.

<sup>44</sup>  
~~89.~~ (Previously Presented) A remote control system as defined in claim <sup>43</sup>~~88~~, wherein said transmitter includes a message builder in communication with said data storage, said message builder operative to construct a message having a tag portion and a command portion, the tag portion conveying data derived from the identifier of said slave controller and data derived from the identifier of said transmitter, the command portion conveying the at least one command.



45

90.

(Previously Presented) A remote control system as defined in claim ~~89~~<sup>44</sup>, wherein said transmitter has an interface in communication with said data storage for outputting the identifier of said transmitter over a communication link different from said first communication link.

46

91.

(Previously Presented) A remote control system as defined in claim ~~90~~<sup>45</sup>, wherein said interface is operative to receive the identifier of said slave controller and to transmit the identifier of said slave controller to said data storage for storage therein.

47

92.

(Previously Presented) A remote control system as defined in claim ~~91~~<sup>44</sup>, wherein said interface is an IR interface.

48

93.

(Previously Presented) A remote control system as defined in claim ~~92~~<sup>44</sup>, wherein the at least one action to be performed by the locomotive is acceleration.

49

94.

(Previously Presented) A remote control system as defined in claim ~~93~~<sup>44</sup>, wherein the at least one action to be performed by the locomotive is braking.

50

95.

(Previously Presented) A remote control system as defined in claim ~~94~~<sup>40</sup>, wherein said slave controller includes:

- a) a data storage for holding the identifier of said slave controller;
- b) an interface in communication with said data storage, said interface operative to output over the second communication link via said interface the identifier of said slave controller.

51

96.

(Previously Presented) A remote control system as defined in claim ~~95~~<sup>50</sup>, wherein said interface is operative to receive over the second communication link the identifier of said transmitter and to direct the identifier of said transmitter to said data storage for storage therein.

52

97.

(Previously Presented) A remote control system as defined in claim ~~96~~<sup>51</sup>, wherein the wireless signal transmitted by said transmitter over the first communication link conveys a message including:

- a) a command portion indicative of the at least one command;
- b) a tag portion including data derived from the identifier of said transmitter and data derived from the identifier of said slave controller.

53  
98.

(Previously Presented) A remote control system as defined in claim 97, wherein said slave controller includes a signal receiver for receiving the wireless signal transmitted by said transmitter over the first communication link.

52

54  
99.

(Previously Presented) A remote control system as defined in claim 98, wherein said slave controller includes a logical processing unit in communication with said data storage and with said signal receiver unit, said logical processing unit being operative to:

53

- a) perform a validation procedure on the message including comparing data in the tag portion in the message with the identifier of said transmitter and the identifier of said slave controller in the data storage;
- b) if the validation procedure validates the message generating control signals for transmission to the controller module for causing the locomotive to perform the at least one action.

100.

– 103. (Cancelled)

55  
104.

(Currently Amended) ~~A method as defined in claim 103, including:~~ A method for remotely controlling a locomotive in which is mounted a slave controller, said method comprising:

- a) providing a portable transmitter;
- b) communicating to the portable transmitter an identifier of the slave controller over a first communication link;
- c) storing in a data storage in said portable transmitter the identifier of the portable transmitter and the identifier of the slave controller communicated over the first communication link;

- d) outputting from the portable transmitter over the first communication link the identifier of the portable transmitter for transmission to the slave controller;
- e) transmitting to the slave controller a wireless signal over a second communication link different from the first communication link, the second communication link being an RF communication link, the wireless signal conveys a message including:
  - i) a command portion indicative of at least one command for causing an action to be performed by the locomotive;
  - ii) a tag portion including the data derived from the identifier of the portable transmitter stored in the data storage and data derived from the identifier of the slave controller stored in the data storage.

54  
105. (Previously Presented) A method as defined in claim 104, wherein the first communication link is an IR link.

57  
106. (Previously Presented) A method for remotely controlling a locomotive in which is provided a controller module, comprising:

- a) mounting on board the locomotive a slave controller;
- b) interfacing the slave controller with the controller module;
- c) communicating to the slave controller over a first communication link an identifier of a remote portable transmitter;
- d) storing in a data storage in the slave controller the identifier of the remote portable transmitter;
- e) storing in the data storage an identifier of the slave controller;
- f) transmitting from the remote portable transmitter a wireless signal over a second communication link different from the first communication link, the second communication link being an RF communication link, the wireless signal conveying a message including:

- i) a command portion indicative of at least one command for causing an action to be performed by the locomotive; and
  - ii) a tag portion;
- g) receiving the wireless signal at the slave controller;
- h) performing a validation procedure at the slave controller by comparing data in the tag portion of the message in the received wireless signal with the identifier of the remote portable transmitter and the identifier of the slave controller in the data storage;
- i) if the validation procedure validates the message in the received wireless signal, generating control signals and directing the control signals to the controller module for causing the locomotive to perform the at least one action.

*Cl cont. 58 107.* **(Previously Presented)** A device for synchronizing addresses in a communication control system, the communication control system including a first component having a memory storing a first identifier and a second component having a memory storing a second identifier, said device comprising:

- a) a port for establishing a communication link with the first component and for establishing a communication link with the second component;
- b) a memory unit;
- c) a processing unit operatively coupled to said port and said memory unit, said processing unit being suitable for:
  - i) establishing a communication link through said port with the first component for acquiring the first identifier from the first component;
  - ii) storing the first identifier in said memory unit;
  - iii) establishing a communication link through said port with the second component for transmitting the first identifier stored in said memory unit to

33

✓

the second component, such as to allow the second component to hold the first identifier and the second identifier in a storage unit at the second component.

<sup>59</sup>  
108. (Previously Presented) A device as defined in claim <sup>58</sup>107, wherein the first component is a slave controller module and the second component is a transmitter unit.

<sup>60</sup>  
109. (Previously Presented) A device as defined in claim <sup>58</sup>107, wherein the first component is a transmitter unit and the second component is a slave controller module.

<sup>61</sup>  
110. (Previously Presented) A device as defined in claim <sup>58</sup>107, wherein said port has a first interface for communication with the first component and a second interface for communication with the second component.

*Cont.* <sup>62</sup>  
111. (Previously Presented) A device as defined in claim <sup>61</sup>110, wherein at least one of said first interface and said second interface is suitable for wireless data communication.

<sup>63</sup>  
112. (Previously Presented) A device as defined in claim <sup>62</sup>111, wherein at least one of said first interface and said second interface suitable for wireless data communication is an infrared interface.

<sup>64</sup>  
113. (Previously Presented) A device as defined in claim <sup>62</sup>110, wherein at least one of said first interface and said second interface is suitable for a serial connection.

<sup>65</sup>  
114. (Previously Presented) A device as defined in claim <sup>58</sup>107, wherein said processing unit is further suitable for:

- a) establishing a communication link with the second component for acquiring the second identifier from the second component;
- b) storing the second identifier in said memory unit;
- c) establishing a communication link with the first component for transmitting the second identifier stored in said memory unit to the first component, such as to



allow the first component to hold the first identifier and the second identifier in a storage unit at the first component.

<sup>66</sup>  
~~115~~. (Previously Presented) A method for synchronizing addresses in a communication control system, the communication control system having a first component associated to a first identifier, a second component associated to a second identifier and an operator programming unit, said method comprising:

- Cl Cont.*
- i) establishing a communication link between the operator programming unit and the first component for transmitting the first identifier from the first component to the operator programming unit;
  - ii) establishing a communication link between the operator programming unit and the second component for transmitting the first identifier from the operator programming unit to the second component;
  - iii) generating an address at the second component on the basis of the first identifier and the second identifier.

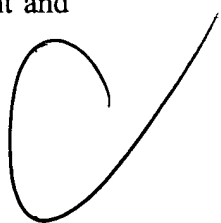
<sup>67</sup>  
~~116~~. (Previously Presented) A method as defined in claim <sup>68</sup>~~115~~, wherein the first component is a slave controller module and the second component is a transmitter unit.

<sup>68</sup>  
~~117~~. (Previously Presented) A method as defined in claim <sup>69</sup>~~115~~, wherein the first component is a transmitter unit and the second component is a slave controller module.

<sup>69</sup>  
~~118~~. (Previously Presented) A method as defined in claim <sup>70</sup>~~115~~, wherein said communication link between the operator programming unit and at least one of the first component and the second component is a wireless communication link.

<sup>70</sup>  
~~119~~. (Previously Presented) A method as defined in claim <sup>71</sup>~~118~~, wherein said wireless communication link is an infrared communication link.

<sup>71</sup>  
~~120~~. (Previously Presented) A method as defined in claim <sup>72</sup>~~115~~, wherein said communication link between the operator programming unit and at least one of the first component and the second component is a serial communication link.





72  
121.

(Previously Presented) A method as defined in claim <sup>66</sup>115, wherein said method further comprises:

- i) establishing a communication link with the second component for acquiring the second identifier from the second component;
- ii) establishing a communication link with the first component for transmitting the second identifier to the first component;
- iii) generating an address at the first component on the basis of the second identifier and the first identifier.

73  
122.

(Previously Presented) A computer readable storage medium including a program element suitable for execution by a computing apparatus for synchronizing addresses in a communication control system, the communication control system having a first component associated to a first identifier and a second component associated to a second identifier, the computing apparatus comprising:

- a) a memory unit;
- b) a processing unit in an operative relationship with said memory unit, said processing unit being suitable for:
  - i) implementing a port for establishing a communication link with the first component and a communication link with the second component;
  - ii) establishing a communication link through said port with the first component for acquiring the first identifier from the first component;
  - iii) storing the first identifier in said memory unit;
  - iv) establishing a communication link through the port with the second component for transmitting the first identifier stored in said memory unit to the second component, thereby allowing the second component to hold the

first identifier and the second identifier in a storage unit at the second component.

<sup>74</sup>  
~~123.~~ (Previously Presented) A computer readable storage medium as defined in claim <sup>13</sup>~~122~~, wherein the first component is a slave controller module and the second component is a transmitter unit.

<sup>75</sup>  
~~124.~~ (Previously Presented) A computer readable storage medium as defined in claim <sup>73</sup>~~122~~, wherein the first component is a transmitter unit and the second component is a slave controller module.

<sup>76</sup>  
~~125.~~ (Previously Presented) A computer readable storage medium as defined in claim <sup>73</sup>~~122~~, wherein said port has a first interface for communication with the first component and a second interface for communication with the second component.

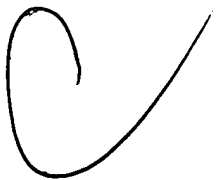
*Cont.* <sup>77</sup>  
~~126.~~ (Previously Presented) A computer readable storage medium as defined in claim <sup>24</sup>~~125~~, wherein at least one of said first interface and said second interface is suitable for wireless data communication.

<sup>78</sup>  
~~127.~~ (Previously Presented) A computer readable storage medium as defined in claim <sup>27</sup>~~126~~, wherein at least one of said first interface and said second interface suitable for wireless data communication is an infrared interface.

<sup>79</sup>  
~~128.~~ (Previously Presented) A computer readable storage medium as defined in claim <sup>24</sup>~~125~~, wherein at least one of said first interface and said second interface is suitable for a serial connection.

<sup>80</sup>  
~~129.~~ (Previously Presented) A computer readable storage medium as defined in claim <sup>73</sup>~~122~~, wherein said processing unit is further suitable for:

- i) establishing a communication link through the port with the second component for acquiring the second identifier from the second component;
- ii) storing the second identifier in said memory unit;



- iii) establishing a communication link through the port with the first component for transmitting the second identifier stored in said memory unit to the first component, thereby allowing the first component to hold the first identifier and the second identifier in a storage unit at the first component.

<sup>81</sup>  
130. (Previously Presented) A communication control system comprising:

- a) a first component having a memory storing a first identifier;
- b) a second component having a memory storing a second identifier;
- c) a device for synchronizing addresses between said first component and said second component, said device comprising:
  - i) a port for establishing a communication link with said first component and a communication link with said second component;
  - ii) a memory unit;
  - iii) a processing unit operatively coupled to said port and said memory unit, said processing unit being suitable for:
    - (1) establishing a communication link through said port with said first component for acquiring the first identifier from the first component;
    - (2) storing the first identifier in said memory unit;
    - (3) establishing a communication link through said port with said second component for transmitting the first identifier stored in said memory unit to said second component, such as to allow said second component to hold the first identifier and the second identifier in a storage unit at said second component;
- d) said second component being operative for generating an address on the basis of the first identifier and the second identifier.

<sup>82</sup>  
131. (Previously Presented) A control system as defined in claim <sup>81</sup>~~130~~, wherein said first component is a slave controller module and said second component is a transmitter unit.

<sup>83</sup>  
132. (Previously Presented) A control system as defined in claim <sup>81</sup>~~130~~, wherein said first component is a transmitter unit and said second component is a slave controller module.

<sup>84</sup>  
133. (Previously Presented) A control system as defined in claim <sup>81</sup>~~130~~, wherein said port has a first interface for communication with said first component and a second interface for communication with said second component.

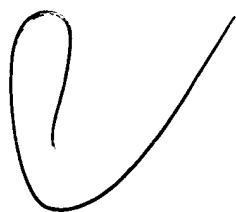
<sup>85</sup>  
134. (Previously Presented) A control system as defined in claim <sup>84</sup>~~133~~, wherein at least one of said first interface and said second interface is suitable for wireless data communication.

<sup>84</sup>  
135. (Previously Presented) A control system as defined in claim <sup>85</sup>~~134~~, wherein at least one of said first interface and said second interface suitable for wireless data communication is an infrared interface.

<sup>87</sup>  
136. (Previously Presented) A control system as defined in claim <sup>84</sup>~~133~~, wherein at least one of said first interface and said second interface is suitable for a serial connection.

<sup>88</sup>  
137. (Previously Presented) A control system as defined in claim <sup>81</sup>~~130~~, wherein said processing unit is further suitable for:

- i) establishing a communication link through said port with said second component for acquiring the second identifier from said second component;
- ii) storing the second identifier in said memory unit;
- iii) establishing a communication link through said port with said first component for transmitting the second identifier stored in said memory unit to said first component, such as to allow said first component to hold the first identifier and the second identifier in a storage unit at the first component.



<sup>89</sup>  
138. (Previously Presented) A transmitter for remotely controlling a locomotive in which is mounted a slave controller, said transmitter comprising:

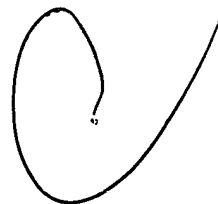
- a) an interface for receiving an identifier of the slave controller via a first communication link;
- b) a signal transmitting unit for transmitting a modulated signal over a second communication link different from the first communication link, the second communication link being an RF communication link, the modulated signal being indicative of at least one command for causing an action to be performed by the locomotive, the modulated signal conveying data derived from the identifier of the slave controller received over the first communication link, said signal transmitting unit including a modulator outputting the modulated signal.

<sup>90</sup>  
139. (Previously Presented) A transmitter as defined in claim <sup>89</sup>138, comprising a data storage in communication with said interface for storing the identifier of the slave controller received via the first communication link.

<sup>91</sup>  
140. (Previously Presented) A transmitter as defined in claim <sup>90</sup>139, wherein said data storage is operative to store an identifier of said transmitter.

<sup>92</sup>  
141. (Previously Presented) A transmitter as defined in claim <sup>91</sup>140, wherein said transmitter includes a message builder in communication with said data storage, said message builder being operative to construct a message having a tag portion and a command portion, the tag portion conveying data derived from the identifier of the slave controller and data derived from the identifier of said transmitter, the command portion conveying the at least one command.

<sup>93</sup>  
142. (Previously Presented) A transmitter as defined in claim <sup>92</sup>141, including a message encoder in communication with said message builder to encode the message constructed by said message builder.



94  
143. (Previously Presented) A transmitter as defined in claim 142, wherein said message encoder processes the message constructed by said message builder to reduce an occurrence of consecutive 0's or 1's in the message constructed by said message builder.

93  
144. (Previously Presented) A transmitter as defined in claim 142, wherein said signal transmitting unit is in communication with said message encoder for receiving the message encoded by said message encoder and for producing the modulated signal conveying the at least one command on the basis of the message encoded by said message encoder.

96  
145. (Previously Presented) A transmitter for remotely controlling a locomotive, said transmitter comprising:

- Al Cont.
- a) a data storage for holding an identifier of said transmitter;
  - b) an interface in communication with said data storage, said interface being operative to establish a first communication link with an external entity for transmitting to the external entity data derived from the identifier of said transmitter via the first communication link;
  - c) a signal transmitting unit in communication with said data storage, said signal transmitting unit being operative to transmit a modulated signal over a second communication link different from the first communication link, the second communication link being an RF communication link, the modulated signal conveying:
    - i) at least one command for causing an action to be performed by the locomotive; and
    - ii) data derived from the identifier of said transmitter;
  - d) said signal transmitting unit including modulator releasing the modulated signal.

97  
146. (Previously Presented) A transmitter as defined in claim 145, wherein said signal transmitting unit is operative to transmit the modulated signal to a slave controller

96

mounted on board the locomotive, said data storage being operative to store an identifier of the slave controller.

98  
147. (Previously Presented) A transmitter as defined in claim 146, wherein said transmitter further comprises a message builder in communication with said data storage, said message builder being operative to construct a message having a tag portion and a command portion, the tag portion conveying data derived from the identifier of the slave controller and data derived from the identifier of said transmitter, the command portion conveying the at least one command.

99  
148. (Previously Presented) A transmitter as defined in claim 147, including a message encoder in communication with said message builder to encode the message constructed by said message builder.

100  
149. (Previously Presented) A transmitter as defined in claim 148, wherein said signal transmitting unit is in communication with said message encoder for receiving the message encoded by said message encoder and for producing the modulated signal conveying the at least one command on the basis of the message encoded by said message encoder.

101  
150. (Previously Presented) A transmitter as defined in claim 149, wherein said message encoder processes the message constructed by said message builder to reduce an occurrence of consecutive 0's or 1's in the message constructed by said message builder.

102  
151. (Previously Presented) A transmitter as defined in claim 150, wherein said modulator modulates the message encoded by said message encoder to produce the modulated signal conveying the at least one command.

103  
152. (Previously Presented) A transmitter as defined in claim 151, wherein said interface is operative to receive over the first communication link the identifier of the slave controller for storage in said data storage.

104  
153. (Previously Presented) A transmitter as defined in claim 152, wherein the first communication link is an IR communication link.

105  
154.

(Previously Presented) A transmitter as defined in claim ~~145~~, wherein the action to be performed by the locomotive is acceleration.

94  
~~145~~

Cl  
Cont  
104

155.

(Previously Presented) A transmitter as defined in claim ~~145~~, wherein the action to be performed by the locomotive is braking.

94  
~~145~~

43

?